

**ecology and environment, inc.**

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International Specialists in the Environmental Sciences

US EPA RECORDS CENTER REGION 5



473230

Date Received for Review: 1/31/85 Date Review Completed: 2/11/85To: DAN COZZAFrom: Cynthia Bachunas, Cynthia PughSubject: SEXTON MATTESON (ILLINOIS)
RS- 8303-1FSample Description: CASE #3547- Low Water MetalsProject Data Status: COMPLETE

FIT Data Review Findings:

Data acceptable with qualifications noted on attached review sheet.
Zinc detected in blank at 20 ug/l.
Zinc data may be biased. Iron was detected in blank at 80 ug/l, but this value is less than the contract required detection limit.

Additional Comments:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 1-25-85

SUBJECT: Review of Region V CLP Data
Received for Review on 1/14/85

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory

TO: Data User: Fit

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Jay Thacker for

We have reviewed the data for the following case(s).

SITE NAME: Sexton Malteson SMO Case No. 3567
EPA Data Set No. SF 865 No. of Samples: 2 D.U./Activity Numbers 1905 / C48500
CRL No. 85MC04563 - 85MC04208
SMO Traffic No. ME A218 - ME A219
CLP Laboratory: Wilson Hrs. Required for Review: 7

Following are our findings.

Spike for Sb is > CRL (140%) while Sn spike is < CRL (40%).

As & Tl spikes obtained by method of standard additions

1-25-85 DM

- ☐ Data are acceptable for use.
- ☒ Data are acceptable for use with qualifications noted above.
- ☐ Data are preliminary - pending verification by Contractor Laboratory.
- ☐ Data are unacceptable.

cc: Dr. Alfred Haebeler/Joan Fisk/Gary Ward, EPA Support Services
Ross K. Robeson, EMSL-Las Vegas
Don Trees, CLP/Sample Management Office

REGION V, U.S. ENVIRONMENTAL PROTECTION AGENCY
ESD/Central Regional Laboratory

DATA TRACKING - FORM I

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CRL Data Set No. 5F 865 ERRIS No. _____

SMO Case No. 3567 Site Name: Sexton Matteson

Name of Laboratory: Wilson Data User: Fit

No. of Samples: 2 Date Samples Received: 1/14/85

1. Have chain-of-custody records been received? YES ☒ NO ☐
2. Have Traffic reports been received? YES ☐ NO ☒
3. If no, are Traffic report numbers written on the chain-of-custody record? YES ☒ NO ☐
4. If no, which Traffic report numbers are missing?

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

5. Are basic data forms in? YES ☒ NO ☐
6. Number of samples claimed: _____ Number of samples received: _____
7. Checked by: Alida Feliciano Date: 1/14/85
8. Received by Contract Project Management Section: _____ Date: _____
9. Review Started: 1-21-85 Reviewer Signature: Dorothy May
10. Total time spent on review: 7 hrs Date review completed: 1-25-85
11. Copied (xeroxed) by: Willie Green Date: 1-28-85
12. Transmitted by: _____ Date: _____
13. Mailed to Data User by: Willie Green Date: 1-28-85
14. REMARKS:

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22304
3/557-2490 FTS:8-557-2490

I EPA SAMPLE NO. I
I I
I MEA218 I
I I

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DATE 85/01/09

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8411-1127

CASE NO. 3567
QC REPORT NO. 3567

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER X SOIL SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1. ALUMINUM	200 U	F	13. MAGNESIUM	48000	F
2. ANTIMONY	60 U_R	F	14. MANGANESE	100	F
3. ARSENIC	20 U	F	15. MERCURY	.2 U	
4. BARIUM	200 U	F	16. NICKEL	20 U	F
5. BERYLLIUM	5 U	F	17. POTASSIUM	2000 U	F
6. CADMIUM	2 U	F	18. SELENIUM	6 U	F
7. CALCIUM	113000	F	19. SILVER	10 U	F
8. CHROMIUM	10 U	F	20. SODIUM	18000	F
9. COBALT	30 U	F	21. THALLIUM	14 U	F
10. COPPER	10 U	F	22. TIN	30 U_R	F
11. IRON	230	F	23. VANADIUM	10 U	F
12. LEAD	4 U	F	24. ZINC	20	F
CYANIDE			PERCENT SOLIDS (%)		

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS MUST BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

COMMENTS:

LAB MANAGER

Barbara J. Lamm

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

RECEIVED JAN 31 1985

85 MC 04208
I EPA SAMPLE NO. I
I I
I MEA219 I
I I

DATE 85/01/09

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8411-1128

CASE NO. 3567
QC REPORT NO. 3567

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW ☒ MEDIUM ☐
MATRIX: WATER ☒ SOIL ☐ SLUDGE ☐ OTHER ☐

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1. ALUMINUM	200_U	P	13. MAGNESIUM	2000_U	P
2. ANTIMONY	60_U_R	P	14. MANGANESE	15_U	P
3. ARSENIC	20_U	F	15. MERCURY	.2_U	
4. BARIUM	200_U	P	16. NICKEL	20_U	P
5. BERYLLIUM	5_U	P	17. POTASSIUM	2000_U	P
6. CADMIUM	2_U	P	18. SELENIUM	6_U	F
7. CALCIUM	1000_U	P	19. SILVER	10_U	P
8. CHROMIUM	10_U	P	20. SODIUM	5000_U	P
9. COBALT	30_U	P	21. THALLIUM	14_U	F
10. COPPER	10_U	P	22. TIN	30_U_R	P
11. IRON	[80]	P	23. VANADIUM	10_U	P
12. LEAD	4_U	F	24. ZINC	20_U	P
CYANIDE			PERCENT SOLIDS (%)		

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS MUST BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

COMMENTS:

LAB MANAGER

Bernadine James

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Wilson

Case # 3567

This review covers the following samples and parameters:

[illegible]

DATA QUALITY OBJECTIVES AND REVIEW

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Case # 3567

OSC or responsible party: Fit

Case Objective Screening

Data Quality Needs

Precision:

Bias: High for Pb (+40) and As (+25); low for
Sr (-60) and Tl (-24)

Obtain the information above directly from the OSC or designee before starting data review. Categorize review level into one of the following (circle one):

A. Enforcement: Case is already an enforcement action, data is sure to be used in court.

B. Assessment: Case already has preliminary data, level and degree of contamination or clean up action needs to be determined.

☒ C. Screening: Case purpose is to determine what, if any, pollutants are at the site, followup sampling likely.

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Case # 3567

REVIEW SUMMARY

	Precision	Bias
Al	—	- 10
Ba	—	+ 5
Be	—	—
Cr	—	- 10
Co	—	—
Cu	—	—
Fe	12	- 9
Mn	10	+ 5
Ni	—	- 7
Ag	—	—
V	—	+ 2
Zn	—	+ 5
As	—	+25
Sb	—	+40
Cd	—	+ 2
Pb	—	+ 6
Hg	—	—
Se	—	—
Tl	—	-24
Sn	—	-60
CN	NR	NR

Precision expressed as RPD between duplicates of sample ME A 218.

Bias expressed as the percent of spike recovery of sample ME A218
from 100%.

Case # 3567

REVIEW SUMMARY

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Data Quality Needs Met?:

Yes

Action Items to Resolve Data Quality:

[illegible]

DATA QUALIFIERS

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Contractor:

Tilson

Case

#3567

Below is a summary of the out of control audits and the possible effect on the data for this case:

Spike of St is > CRL (140%) and Sn is < CRL
(40%)

Reviewed by:

Dorothy May

Phone:

(312) 886-1974

Date:

1-24-85

Case: # 3567

Contractor: Nilson

DATA PACKAGE COMPLETENESS AUDIT

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I. Cover Page

✓ The cover page must include general comments, Statement of Work Number, QC Report #, EPA cross reference numbers, footnotes used in the data package, and the statement on ICP corrections.

II. Inorganic Data Report Sheet - Form I

A completed Form I must be submitted for every sample in that case.

✓ Proper matrix and concentration level indicated.

NR % solids reported for solid samples.

✓ Analytical method code for each parameter. "P" for ICP/flame AA or "F" for furnace.

— Any dilutions affecting the IDL explained in the comment section.

✓ For positive values less than the contract required detection limit, the value is put in brackets. [].

✓ For not detected, the detection limit is reported, followed by a "U".

✓ Lab manager's signature.

III. QA/QC Data

The following forms must be submitted. A check for completeness and and compliance follows in this audit.

✓ Initial and Continuing Calibration Verification - Form II.

✓ Blank data - Form III

✓ ICP Interference Check Sample - Form IV

✓ Spike Sample Recovery - Form V

✓ Duplicate Data - Form VI

✓ Instrument Detection Limit and Laboratory Control Sample - Form VII.

✓ Standard Addition Results - Form VIII

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IV. Raw Data

A legible photocopy of raw data consisting of the sequential measurement readout record, such as an instrument tape or printout, clearly labeled with sufficient information to identify both the sample identity and the final result must be submitted for each of the following.

- ☒ calibration standards, with prep date.
- ☒ calibration and preparation blanks
- ☒ initial and continuing calibration
- ☒ interference check samples, initial and continuing.
- ☒ duplicates
- ☒ spikes - indicating standard solutions used, final spike concentrations and volumes involved.
- ☒ samples - including all weights, dilutions and volumes used to obtain the reported value.
- ☒ instrument adjustments or corrections, if any.
- ☒ raw furnace data for:
 - initial single spike data
 - single spike % recovery, if used
 - full method of standard addition, if performed.
 - method of standard addition correlation coefficient, slope and intercept of linear fit.

V. Sample Traffic Report

no Copy of SMO Sample Traffic Report with lab receipt information and original contractor signature.

Case: # 3567

Contractor: Wilson

SPIKE BIASES

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Attach Form V to this sheet. List only those recoveries which are outside the control limits of 75%-125%. State spiking concentration only if different from the contract required levels.

<u>Parameter</u>	<u>% Recovery</u>	<u>Spike Concentration</u>	<u>SMO#</u>
<i>Sb</i>	<i>140 %</i>	<i>0.05 mg./l.</i>	<i>MEA 218</i>
<i>Sn</i>	<i>40 %</i>	<i>0.40 mg./l.</i>	<i>↓</i>

NOTE: At least one spike per case or per every 20 samples, whichever is more frequent is required. If recovery is outside the limits, all data associated with that spike must be flagged with an "R". If sample concentration exceeds the spike concentration by a factor of four or more, and the recovery is out of control, the data reported is not flagged.